

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/781,913  
Applicant : Thilo Rusche, et al.  
Confirmation No. : 5324  
Filed : February 20, 2004  
TC/A.U. : 2144  
Examiner : Mesfin, Yemane M.  
Customer No. : 27896  
Docket No. : 2500.0002C (INP0005-US)  
Title : Dual Use Counters for Routing Loops and Spam Detection

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**MAIL STOP AF**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Further to the Notice of Appeal filed herewith, and prior to the filing of an Appeal Brief, Applicant respectfully requests review of the following rejections:

- Claims 1-16 under 35 U.S.C. §103(a) as being unpatentable over Allison et al. (WO 200271234 A) ("Allison") in view of Gould et al. (U.S. 2004/0199592 A1) ("Gould") and further in view of Wolczko et al. (U.S. 6,728,738, "Wolczko").

The claims pending in the present application are directed to a method for detecting an undesirable condition within a messaging network. For example, claim 1 recites a method that includes:

receiving a message from a source;  
incrementing a source counter and updating an array of timestamps with a new entry corresponding to a time at which the message from the source was received, the array of timestamps including a timestamp entry for each respective source counter increment, and further **including more than two timestamps for a given source**;

iterating through the array of timestamps to access all source counters and associated timestamps;  
removing entries in the array of timestamps that are older than a fixed window size, and **decrementing the source counter for each entry so removed**;  
comparing the source counter to a source threshold; and  
when the source counter exceeds the source threshold, triggering an alarm indicative of an undesirable condition.

Thus, the timestamp array that is filled as source address counters are incremented include multiple entries for each source address (“wherein the array of timestamps includes more than two timestamps for a given source address”). It is acknowledged in the paragraph bridging pages 3 and 4 of the Office Action that neither Allison nor Gould teaches an array of timestamps including more than two timestamps for a given source, or iterating through the array to remove entries therein. For these aspects of the claimed invention the Office Action cites to Wolckzo.

Wolckzo discloses a method for "lifetime analysis" of objects in a garbage-collected system, wherein "reference counts" are maintained for each object in an object graph. Reference counts are stored values that indicate the number of incoming pointers to a given object. Wolckzo at col. 3, lines 40-43 and Figs. 2 and 3. Fig. 3 of Wolckzo illustrates a problem in which even though the reference counts of objects 302, 304 and 306 in cycle 300 are all non-zero, those objects may nevertheless be dead as none of the objects in the cycle is, in fact, reachable from a root. Wolckzo at col. 3, lines 59-65. To identify the dead objects in such a cycle, Wolckzo discloses using a "tracing collector," such as mark-sweep collector, "to detect when objects are cyclic garbage." Wolckzo at col. 4, lines 56-59. Then, to figure out precisely when a cycle (and objects therein) actually died, timestamps of changes to the cycles are examined in reverse chronological order. Wolckzo at col. 4, lines 1-5. The lifetime of a given object may then be determined based on the time it was created and the time it dies. Wolckzo at col. 4, line 67 to col. 5, line 5.

Thus, in Wolckzo, the timestamp values have to do with when an object is pointed to. Notably, the reference count in Wolckzo does not keep track of which other object pointed to a given object. In other words, Wolckzo does not track a source. Consequently, Wolckzo does not

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disclose an array of timestamps having "more than two timestamps for a given source," as is required by the claims, since Wolckzo does not have any idea what source (other object) has caused the reference count to be incremented. More importantly, there is only one pointer from any given object to another given object. That is, there is never more than one source attributable to a counter increment in Wolckzo. Consequently, Wolckzo does not overcome the deficiencies of Allison and Gould.

Furthermore, and contrary to the assertion made in the Office Action, Gould does not disclose decrementing a source counter when entries in the array of timestamps are removed, as required by the claims. Gould only discloses incrementing a message counter. See, e.g., paragraph [0046] of Gould. If the message rate calculated in Gould is above a threshold, then "remedial action" is taken, including, e.g., discarding or blocking emails or delaying emails. See, e.g., paragraph [0049] of Gould. However, there is no disclosure regarding decrementing the message counter as a result of any of those actions. Accordingly, Gould does not disclose a required element of the claims.

Because, for the reasons outline above, none of Allison, Gould or Wolckzo discloses or suggests expressly recited limitations of the claims, the §103 rejection of the claims based on those prior art references must be withdrawn.

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Respectfully submitted by:

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